

# Investigators find something fishy with classical evidence for dietary fish recommendation

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Oily fish are currently recommended as part of a heart healthy diet. This guideline is partially based on the landmark 1970s study from Bang and Dyerberg that connected the low incidence of coronary artery disease (CAD) among the Eskimos of Greenland to their diet, rich in whale and seal blubber. Now, researchers have found that Eskimos actually suffered from CAD at the same rate as their Caucasian counterparts, meaning there is insufficient evidence to back Bang and Dyerberg's claims. Their findings are published in the *Canadian Journal of Cardiology*.

Using 40 years of new information and research, a team of investigators set out to reexamine Bang and Dyerberg's study of Greenland Eskimos and CAD. This study is still widely cited today when recommending the dietary addition of [fish oil](#) supplements (like omega-3 fatty acids) or [oily fish](#) to help avoid [cardiovascular problems](#). However, the new review of information has determined that Bang and Dyerberg failed to actually investigate the cardiovascular health of the Eskimo population, meaning that the cardioprotective effects of their diet are unsubstantiated.

"Bang and Dyerberg's seminal studies from the 1970s are routinely invoked as 'proof' of low prevalence of CAD in Greenland Eskimos ignoring the fact that these two Danish investigators did not study the prevalence of CAD," notes lead investigator George Fodor, MD, PhD, FRCPC, FAHA. "Instead, their research focused on the dietary habits of

Eskimos and offered only speculation that the high intake of marine fats exerted a protective effect on coronary arteries."

Bang and Dyerberg relied mainly on annual reports produced by the Chief Medical Officer of Greenland to ascertain CAD deaths in the region. The 2014 study has identified a number of reasons that those records were likely insufficient, mainly that the rural and inaccessible nature of Greenland made it difficult for accurate records to be kept and that many people had inadequate access to medical personnel to report cardiovascular problems or heart attacks. In fact, researchers have now found that concerns about the validity of Greenland's death certificates have been raised by a number of different reports and that at the time, more than 30% of the population lived in remote outposts where no medical officer was stationed. This meant that 20% of the death certificates were completed without a doctor having examined the body.

The data collected through this new investigation shows that Eskimos do have a similar prevalence of CAD to non-Eskimo populations, and in fact, they have very high rates of mortality due to cerebrovascular events (strokes). Overall, their life expectancy is approximately 10 years less than the typical Danish population and their overall mortality is twice as high as that of non-Eskimo populations.

"Considering the dismal health status of Eskimos, it is remarkable that instead of labeling their diet as dangerous to health, a hypothesis has been construed that dietary intake of marine fats prevents CAD and reduces atherosclerotic burden," remarks Dr. Fodor.

Many recent large and well-designed studies have shown ambiguous or negative results regarding the cardioprotective properties of omega-3 fatty acids and [fish oil supplements](#), and yet partly based on the work of Bang and Dyerberg, they are still widely recommended as part of a heart healthy diet plan.

"Publications still referring to Bang and Dyerberg's nutritional studies as proof that Eskimos have low prevalence of CAD represent either misinterpretation of the original findings or an example of confirmation bias," concludes Dr. Fodor. "To date, more than 5000 papers have been published studying the alleged beneficial properties of omega-3 [fatty acids](#), not to mention the billion dollar industry producing and selling fish oil capsules based on a hypothesis that was questionable from the beginning."

**More information:** "'Fishing' for the origins of the 'Eskimos and heart disease' story. Facts or wishful thinking?" by George Fodor, MD, PhD, FRCPC, FAHA; Eftyhia Helis, MSc; Narges Yazdekhashti MSc; Branislav Vohnout, MD; *Canadian Journal of Cardiology*, [DOI: 10.1016/j.cjca.2014.04.007](#)

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